

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20544**

In the Matter of

**Implementation of the Local Competition
Provisions of the Telecommunications Act
of 1996**

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CC Docket No. 96-98

**AFFIDAVIT OF
MICHAEL R. BARANOWSKI
JOHN C. KLINK
AND BRIAN F. PITKIN
ON BEHALF OF AT&T CORP.**

EXHIBIT A

Filed June 10, 1999

I. INTRODUCTION

1. Our names are Michael R. Baranowski, John C. Klick and Brian F. Pitkin. We are employed by Klick, Kent & Allen, Inc. ("KK&A"), an economic and financial consulting firm specializing in cost analysis. KK&A, a subsidiary of FTI Consulting, Inc., is located at 66 Canal Center Plaza, Suite 670, Alexandria, Virginia 22314. The backgrounds and qualifications of Mr. Klick and Mr. Pitkin are included in a May 26 affidavit filed by Messrs. Klick and Pitkin.¹ Mr. Baranowski's qualifications are included as Attachment 1 to this affidavit.

2. During the past several years, KK&A has assisted AT&T and MCIWorldCom in analyzing and presenting cost evidence in numerous proceedings arising out of the Telecommunications Act of 1996. In this proceeding, we have been asked by AT&T to evaluate the Entry Model ("EM") developed by LECG, which is the subject of an affidavit filed by William L. Fitzsimmons ("Fitzsimmons Aff.")² on behalf of Ameritech. According to Dr. Fitzsimmons, the EM was "designed to develop general guidelines for determining where CLECs have opportunities for value-positive entry without access to unbundled local switching and transport." (Fitzsimmons Aff., p. 3). Based on runs of the EM, Dr. Fitzsimmons concludes that "providing competitive local service with self-supplied transport and switching is viable and profitable." (Fitzsimmons Aff., pp. 1-2). Our review of the Fitzsimmons affidavit reveals that it incorporates numerous significant shortcomings, including:

¹ Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Comments of AT&T, Exhibit D, Affidavit of John C. Klick and Brian F. Pitkin (*filed* May 26, 1999) ("Klick/Pitkin Aff.").

² Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Comments of Ameritech, Attachment 1, Affidavit of William L. Fitzsimmons (*filed* May 26, 1999).

- overstating revenues that a CLEC could reasonably achieve;
- understating costs that a CLEC would incur in entering local exchange markets; and
- excluding significant costs that a CLEC would incur to maintain and operate its local exchange facilities.

In addition, Ameritech fails to provide detailed information about the EM sufficient to permit commenting parties to conduct a thorough review and critique of anything other than the most global assumptions underlying the model.³ All of these shortcomings -- to the extent they are quantifiable -- serve to bolster Dr. Fitzsimmons' specious conclusions.

3. Dr. Fitzsimmons also states that "[c]onservative inputs were adopted to increase the confidence in the simulation results." (Fitzsimmons Aff., p. 3). However, it is clear that the assumptions used in the EM, to the extent they are described by Dr. Fitzsimmons, are not conservative.

4. Our affidavit is organized as follows. In Section II, we provide a brief overview, based on the Fitzsimmons affidavit, of the apparent framework of the EM, and note that the model does not address whether CLECs would be "impaired" in their ability to offer service if they were denied access to certain unbundled elements. In Section III, we illustrate why many of the assumptions used in the EM are unrealistic and certainly not conservative. In Section IV, we discuss the need to be explore the EM in order to assure that further errors and self-serving assumptions are not incorporated into the EM. Until the model is fully evaluated, the model cannot be used to support any conclusion regarding the potential profitability (or lack thereof) of

³ Without a complete description of the model assumptions and inputs, and the ability to examine how the EM's algorithms implement those assumptions and apply those inputs, the model results reported by Dr. Fitzsimmons amount to little more than mere assertions on his part.

CLEC entry into local markets using self-provisioned switches and transport. In Section V, we summarize our affidavit, concluding that the EM is neither conservative nor reliable as a tool for evaluating the profitability of CLEC entry into the local exchange business.

II. OVERVIEW OF THE EM

5. The EM purportedly “estimates annual cash flows for CLECs” (Fitzsimmons Aff., p. 4) by modeling a single CLEC entry strategy for every CLEC, in which the following occurs:

- each market will attract three CLECs, two Tier 1 and one Tier 2, that will, over a ten-year period, garner an average 40 percent share of the market;
- market growth rates and pricing policies are based on historical data, creating an estimate of the potential competitive opportunities for CLECs in each of the next 10 years;
- in year one, each CLEC installs local switching capability and self-supplies transport rings to collect traffic from Ameritech wire centers and leases DS1s to return traffic to other carriers networks;
- in year two, each CLEC evaluates, based on a comparison of net present values, entry into a secondary group of predetermined wire centers by either the construction of a second transport ring to collect traffic back to the switch location, or by reselling the ILEC’s local services; and
- in year three, each CLEC uses a similar net present value evaluative process to determine how to serve the remaining outlying targeted wire centers.

Thus the EM assumes that “CLECs serve all of their demand by either reselling ILEC services or leasing unbundled loops and transporting the traffic to and from their own switches.” (Fitzsimmons Aff., p. 8).

6. One of the major uncertainties associated with the EM is the network configuration implicit in the model. The Fitzsimmons affidavit suggests that the model assumes that CLECs all will place their switches in a single physical location. This is inconsistent with

the way in which CLECs install switches (*see*, for example, the initial comments filed by Covad in this proceeding), and tends to minimize costs associated with right-of-way, building access, and municipal permitting that CLECs incur, in the real world, to enter local markets.⁴

7. Most importantly, the EM does not evaluate the competitive opportunities CLECs would have *today* by entering the market using unbundled network elements, nor does it compare the results of such entry against a CLECs' ability to compete without such elements. Rather, the EM merely attempts to calculate whether a CLEC could, over time, profitably offer *some* services to *some* customers in *some* places based on the aggressive assumptions made by Dr. Fitzsimmons. Thus, the EM does not address the fundamental issue of this proceeding, *i.e.*, whether CLECs' ability to compete would be diminished (or impaired) if they were denied access to unbundled elements today.

III. THE EM DOES NOT REALISTICALLY REPRESENT THE LOCAL ENTRY ENVIRONMENT A CLEC WOULD ENCOUNTER

A. Conceptual Problems: The EM Does Not Reflect Realistic Revenue Assumptions.

8. Based on the few details provided in the Fitzsimmons affidavit, the EM apparently assumes that CLEC business revenues per line will increase 20.4 percent in the next ten years,⁵ which is equivalent to an average annual growth rate of 1.87 percent. Statistics

⁴ The Fitzsimmons affidavit provides no information on what, if anything, EM assumes about the costs of right-of-way, building access, or municipal permitting.

⁵ Table 1 of the Fitzsimmons affidavit identifies a business monthly revenue per line of \$44.24 for the Indianapolis Metropolitan area. Table 2 of the Fitzsimmons affidavit shows that, in year 10, the EM assumes CLECs will earn \$177.7 million in revenues for 278,088 total business lines. Thus, the revenues per business line in year 10 are \$53.25 (\$177,700,000 / 278,088 / 12). This

(continued . . .)

published by the FCC (1997 Statistics of Communications Common Carriers), however, show that the Producer Price Index for Local Business services is basically flat (Table 8.3) and the trend for average local rates for urban single line business is only about 0.2 percent per year (Table 8.5). Thus, the business revenue growth-per-line assumed by the EM is not conservative. Moreover, competition of the intensity assumed by the EM can be expected to exert significant downward pressure on prices, especially in markets that were formally bottleneck monopolies. The EM's failure to incorporate a realistic revenue forecast substantially overstates the profits that CLECs can reasonably expect, even in the short-run, and renders the EM results anything but "conservative." (see Klick/Pitkin affidavit, pp. 8-11)

9. Likewise, the EM assumes that CLEC residential revenues per line will increase 28.2 percent over the next ten years⁶ (or an average annual increase of 2.52 percent). Again referring to the 1997 Statistics of Communications Common Carriers, for the period from 1989 to 1997, the EM assumption is four times the average annual increase for residential local service in urban areas (Table 8.4).

10. How the EM's treats interLATA revenues also is unclear, yet these assumptions have a significant effect on the model's calculation of substantial positive net present value. The

(... continued)

translates into 20.4 percent growth in revenues per line over the hypothesized ten years (\$53.25 / \$44.24).

⁶ Table 1 of the Fitzsimmons affidavit identifies a residential monthly revenue per line of \$31.75 for the Indianapolis Metropolitan area. Table 2 of the Fitzsimmons affidavit shows that, in year 10, the EM assumes CLECs will earn \$61.4 million in revenues for 125,678 total residential lines. Thus, the revenues per residential line in year 10 are \$40.71 (\$61,400,000 / 125,678 / 12). This translates into 28 percent growth in revenues per line over the hypothesized ten years (\$40.71 / \$31.75).

EM assumption that each CLEC will add one new long distance customer for every five local customers gained⁷ is inappropriate for this analysis, particularly when there are multiple CLEC entrants hypothesized, as is the case in the EM.⁸ This assumption is particularly unreasonable if it assumes that a CLEC already serving the long distance market can increase long distance usage and revenues in a more competitive environment in which Ameritech would be presumably be competing for interexchange customers. A realistic assumption would be to attribute *no* incremental interexchange revenues to CLEC local entry (*see* Klick/Pitkin affidavit, p. 10).

B. Conceptual Problems: The EM Does Not Reflect Realistic Costs.

11. A significant problem with the inputs used in the EM is that the unbundled network element ("UNE") rates and non-recurring costs ("NRCs") employed by the model do not reflect the interconnection agreements ("ICAs") between Ameritech and AT&T that are currently in effect in Indiana and Ohio, which are the basis upon which AT&T is required to purchase UNEs. For example, Table 3 of the Fitzsimmons affidavit displays the loop rates for Indiana that are used in the EM, *i.e.*, \$8.99, \$8.15, and \$8.03 for low, medium and high density zones, respectively. However, the AT&T/Ameritech ICA for Indiana clearly states that the

⁷ Alternatively, the EM may attribute, as revenues associated with AT&T's entry into the local market, 20 percent of the long distance revenues it *already* earns from its current customers. This would not be appropriate, and would overstate the profitability of entry into the local market calculated by the EM.

⁸ For example, Dr. Fitzsimmons hypothesizes that both AT&T and MCIWorldCom enter the market and it is illogical to conclude that both would realize substantial gains in total long distance market share.

recurring loop rate for a 2-wire loop, is \$12.19 -- more than 50 percent higher than the loop rate used by the EM in the highest density zone.⁹

12. Similarly, the EM apparently does not use the NRCs from the AT&T/Ameritech interconnection agreements. Attachment WLF-3 to the Fitzsimmons affidavit identifies total NRCs of \$43.90 per UNE loop for service orders and line connection (\$14.57 and \$29.33, respectively) in Indiana. However, the AT&T/Ameritech interconnection agreement states that NRCs are more than twice as high, *i.e.*, \$46.42 per service order and \$20.00 for line connection (for a total of \$66.42).¹⁰ Dr. Fitzsimmons never explains why the EM fails to use the appropriate rates from the current agreements.¹¹

13. The Fitzsimmons affidavit also gives no indication that it includes many of the other elements that a CLEC would need to purchase to gain customers. These items include cross connect charges, service coordination fees, specified conversion time charges, and

⁹ The same is true for Ohio. The Fitzsimmons affidavit identifies loop rates of \$9.52, \$7.97 and \$5.93 for low, medium and high density zones, respectively, while the AT&T/Ameritech ICA shows recurring rates of \$13.73, \$11.68 and \$8.36 for these same density areas -- each of which is more than 40 percent higher than the loop rates used in the EM.

¹⁰ Again, the same holds true for Ohio. The EM employs a total of \$47.23 in NRCs for Ohio (\$16.23 for service orders and \$31.00 for line connection). The AT&T/Ameritech ICA shows \$50.21 (\$25.19 per service order and \$25.02 for line connection).

¹¹ Specifically, the Indiana ICA requires that "In the event the initial rates under this Agreement are 'proxy rates' established by the FCC or the Commission, the Parties are to substitute rates later established by the FCC or Commission under procedures consistent with Act and any Order of the FCC or Commission." (Interconnection Agreement Under Sections 251 and 252 of the Telecommunications Act of 1996, February 25, 1997, by and between Ameritech Information Industry Services and AT&T Communications of Indiana, Inc.) Thus, AT&T is obligated to purchase UNEs under the ICA until rates are "later established by the FCC or Commission," which has not been done.

multiplexing charges, among others.¹² If such costs are omitted, then the resulting profitability potential for the CLECs is obviously overstated.

14. In addition, the Fitzsimmons affidavit makes no mention of "churn" that could occur during the EM's 10 year analysis, which is a natural outcome of the competitive process. For example, the Telcomp© Model assumes that each individual customer will, on average, turn over every two and a half years. In addition, Dr. Fitzsimmons' own source (the February 1, 1999 Merrill Lynch Comment) assumes a "24% annual churn" for AT&T's joint venture with Time Warner in local markets. If churn is not addressed within the EM, adopting a churn assumptions such as that employed in the Telcomp Model© would quadruple the costs associated with NRCs.

15. The EM, as described in the affidavit of Dr. Fitzsimmons, apparently also fails to adequately consider start-up costs for CLECs. Start-up costs would be required in order for a CLEC to provide for buildings, systems development, personnel recruitment, and the administrative functions associated with local entry. They may, in part or in whole be reflected in SG&A expenses. However, the EM also makes unrealistic assumptions regarding sales, general and administrative ("SG&A") costs in the EM. The Fitzsimmons affidavit asserts that SG&A expenses will start at 40 percent of revenues in the first year and drop to 20 percent in the third year of operation. These SG&A expense-to-revenue ratios are substantially below those actually experienced by CLECs attempting to enter local markets. As noted in the Klick/Pitkin affidavit, SG&A ratios of 50 percent and higher are more realistic in the short term, and ratios of

¹² In this regard, the EM apparently is similar to the Telcomp© Model, sponsored by SPR in this proceeding, although the Telcomp© Model did provide and include the cost of cross connects.

30 percent are more the norm in the longer term.¹³ Finally, Dr. Fitzsimmons provides no support for the model assumption that new entrants, after three years of operation, would be able to achieve SG&A expenses significantly lower than those experienced by typical communications carriers.¹⁴

16. A more realistic model would assume that SG&A percentages will be very high in early years -- higher than revenues, in many cases, because revenues cannot be earned prior to the SG&A outflows.¹⁵ The EM assumptions clearly are not conservative.

17. Dr. Fitzsimmons states that "[c]osts for network operations, administration, and maintenance (OA&M) are added as 15 percent of gross plant." (Fitzsimmons Aff., p. 20). This statement, if taken at face value, appears to imply that the EM would calculate OA&M costs based only on the network assets owned by the CLEC and used to provide local service. The

¹³ For example, the 1998 Annual Report for McLeod USA, an established local competitor, states that "we expect that our cost of service, SG&A and capital expenditures will continue to increase significantly, all of which may have a negative impact on operating results," equating to a 43 percent SG&A expense-to-revenue ratio compared to 55 percent in 1997. Similarly, US XCHANGE states, in its 1998 10K, that SG&A for 1998 was \$28.7 million compared to \$7.0 million in revenues (310 percent).

¹⁴ The May 26, 1999 Klick/Pitkin affidavit explains that "[e]ven if a CLEC is a large long-distance company, such as AT&T or MCIWorldCom, the decision to enter the local market must be made on the basis of cash flows associated with that decision -- and high up-front SG&A expenses can be expected, when these companies seek to enter local markets, relative to the revenues associated with entry." (Klick/Pitkin Aff., pg. 24).

¹⁵ The low SG&A ratios used in the EM may be affected by the concept of "incrementality" which appears at several points in the Fitzsimmons affidavit. He does not explain what he means by this concept, but used improperly, it could serve to significantly understate costs associated with CLEC entry. If money was spent, prior to 1999, in anticipation of long-term growth in local customer penetration, the EM conceivably excludes these costs from its calculation of "incremental costs" even though it includes the revenue gains that these earlier investments would permit.

EM does not assume that the CLEC builds (or owns) all facilities necessary to provide local service, such as the loop. Instead, these facilities are "leased" by acquiring UNEs. Because the CLEC's operations and administration will be equivalent or even higher than the ILEC,¹⁶ estimating the cost using a ratio based on ILEC experience in relation to an ILEC network with high gross plant investment will understate these costs.

C. Conceptual Problems: The EM Does Not Include Appropriate Cash Flow Assumptions.

18. The EM appears to make unrealistic assumptions regarding the timing of revenues and expenses in performing its cash flow analyses.¹⁷ These errors are obvious when one evaluates Chart 1 in the Fitzsimmons affidavit, which states that the EM assumes that each CLECs would gain approximately 5 percent of the market in Year 1. Because the EM ties a significant portion of expenses directly to revenues, the model implicitly assumes that none of the expenses for these lines would be incurred until the first year of service, even though CLECs routinely incur significant expenditures for equipment, facilities, personnel, training, testing, provision of UNEs, and creation of collocation space long before the first customer generates any revenue. The EM assumptions in this regard are seriously flawed and certainly not conservative.

¹⁶ See, e.g., Comments of AT&T, Exh-E, Affidavit of C. Michael Pfau, Second Further Notice of Proposed Rulemaking, *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, (filed May 26, 1999).

¹⁷ These are similar to the unrealistic assumptions made in the Telcomp© Model that, when corrected, had a significant effect on the results produced by that model.

IV. THE DEARTH OF INFORMATION PROVIDED ABOUT THE EM RENDERS EFFECTIVE REVIEW IMPOSSIBLE

19. In order to permit effective review of a model or business case analysis -- review that is essential if a model's results are intended for use in policy formulation -- all assumptions and calculations must be clearly documented and verifiable. This is not the case with the EM.

20. Throughout his affidavit, Dr. Fitzsimmons makes unsupported assertions regarding line growth, market penetration, basic rate inflation, and cost impacting assumptions. In some cases, critical assumptions are not even stated explicitly, and no documentation of any kind has been provided to support them. While the Fitzsimmons affidavit has enabled us to infer *some* of the assumptions used in the model (by examining some of the tables and attachments to the affidavit, and "reverse engineering" certain assumptions), there are numerous uncertainties that remain. A partial list of the remaining questions is include at Attachment 2.

V. CONCLUSIONS

21. The information about the EM provided in the Fitzsimmons affidavit falls *far short* of what would be required to meaningfully evaluate the model. Without this information, the model is essentially a black box, and its output -- as reported in the Fitzsimmons affidavit -- is not a reliable basis for making policy decisions.

22. Because of this substantial information void, we have been able to address only those model characteristics that we could derive or infer from the Fitzsimmons affidavit in a relatively abbreviated review period. In almost every substantive area that we could analyze -- current and forecasted revenue levels, UNE and NRC assumptions, equipment and facilities

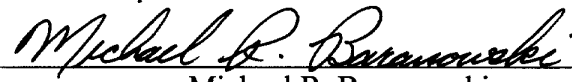
investment, SG&A and other operating expenses, and cash flow timing -- the Fitzsimmons affidavit reveals potentially serious flaws in the EM that overstate revenues, understate costs, and significantly overstate profitability.

23. Even on its own terms, the EM cannot reasonably and reliably demonstrate that a CLEC can, over time, profitably enter certain described markets.

24. Most importantly, the analytical structure employed by the EM fails to address, at all, the key question in this proceeding, *i.e.*, would CLECs abilities to offer a desired service be diminished (or impaired) if it were denied access to requested unbundled network elements?

**Affidavit of
Michael R. Baranowski**

I declare under penalty of perjury that the foregoing is true and correct. Executed on
June 9, 1999.


Michael R. Baranowski

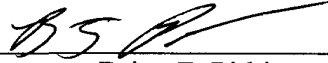
**Affidavit of
John C. Klick**

I declare under penalty of perjury that the foregoing is true and correct. Executed on
June 9, 1999.


John C. Klick

**Affidavit of
Brian F. Pitkin**

I declare under penalty of perjury that the foregoing is true and correct. Executed on
June 9, 1999.

A handwritten signature in black ink, appearing to read 'BFP', is written over a horizontal line.

Brian F. Pitkin

ATTACHMENT 1

AFFIDAVIT OF BARANOWSKI, KLINK AND PITKIN
DOCKET NO. 96-98

CURRICULUM VITAE
OF
MICHAEL R. BARANOWSKI

EDUCATION

Fairfield University, Fairfield, CT, 1980
Bachelor of Science - Accounting

Kean College, Union, NJ, 1980
Supplemental Finance Studies

EMPLOYMENT HISTORY

Wyer, Dick & Co., Livingston, NJ, 1980-1981
Consultant

Snavely, King & Associates, Inc., Washington, DC, 1981-1988
Consultant

Klick, Kent & Allen, Inc., Alexandria, VA, 1988-Present
Principal

TELECOMMUNICATIONS TESTIMONY

Federal Communications Commission

February 1998 File No. E-98-05. AT&T Corp. v. Bell Atlantic Corp. Affidavit of Michael R. Baranowski.

March 13, 1998 File No. E-98-05. AT&T Corp. v. Bell Atlantic Corp. Supplemental Affidavit of Michael R. Baranowski.

Public Service Commission of Delaware

February 4, 1997 PSC Docket No. 96-324. In the Matter of Bell Atlantic - Delaware Statement of Terms and Conditions Under Section 252(F) of the Telecommunications Act of 1996. Testimony of Michael R. Baranowski.

Public Service Commission of the District of Columbia

March 24, 1997 Formal Case No. 962. In the Matter of the Implementation of the District of Columbia Telecommunications Competition Act of 1996. Testimony of Michael R. Baranowski.

May 2, 1997 Formal Case No. 962. In the Matter of the Implementation of the District of Columbia Telecommunications Competition Act of 1996. Rebuttal Testimony of Michael R. Baranowski.

Public Service Commission of the State of Maryland

March 7, 1997 Docket No. 8731, Phase II. In the Matter of the Petitions for Approval of Agreements and Arbitration of Unresolved Issues Arising Under Section 252 of the Telecommunications Act of 1996. Direct Testimony of Michael R. Baranowski.

April 4, 1997 Docket No. 8731, Phase II. In the Matter of the Petitions for Approval of Agreements and Arbitration of Unresolved Issues Arising Under Section 252 of the Telecommunications Act of 1996. Rebuttal Testimony of Michael R. Baranowski.

New Jersey Board of Public Utilities

December 20, 1996 Docket No. TX 95120631. Notice of Investigation Local Exchange Competition for Telecommunications Services. Rebuttal Testimony of John C. Klick and Michael R. Baranowski.

North Carolina Utilities Commission

March 9, 1998 Docket No. P-100, Sub 133d. In the Matter of Establishment of Universal Support Mechanisms Pursuant to Section 254 of the Telecommunications Act of 1996. Rebuttal Testimony of Michael R. Baranowski.

Pennsylvania Public Utility Commission

January 13, 1997 Docket Nos. A-310203F0002 et al. MFS-III. Application of MFS Intelenet of Pennsylvania, Inc. et. Al. (Phase III). Rebuttal Testimony of Michael R. Baranowski.

February 21, 1997 Docket Nos. A-310203F0002 et al. MFS-III. Application of MFS Intelenet of Pennsylvania, Inc. et. Al. (Phase III). Surrebuttal Testimony of Michael R. Baranowski.

April 22, 1999 Docket Nos. P-00991648, P-00991649. Petition of Senators and CLECs for Adoption of Partial Settlement and Joint Petition for Global Resolution of Telecommunications Proceedings. Direct Testimony of Michael R. Baranowski.

State Corporation Commission Commonwealth of Virginia

April 7, 1997 Case No. PUC970005. Ex Parte to Determine Prices Bell Atlantic - Virginia, Inc. Is Authorized To Charge Competing Local Exchange Carriers In Accordance With The Telecommunications Act of 1996 And Applicable State Law. Affidavit of Michael R. Baranowski.

April 23, 1997 Case No. PUC970005. Ex Parte to Determine Prices Bell Atlantic - Virginia, Inc. Is Authorized To Charge Competing Local Exchange Carriers In Accordance With The Telecommunications Act of 1996 And Applicable State Law. Direct Testimony of Michael R. Baranowski.

June 10, 1997 Case No. PUC970005. Ex Parte to Determine Prices Bell Atlantic - Virginia, Inc. Is Authorized To Charge Competing Local Exchange Carriers In Accordance With The Telecommunications Act of 1996 And Applicable State Law. Rebuttal Testimony of Michael R. Baranowski.

Public Service Commission of West Virginia

February 13, 1997 Case Nos. 96-1516-T-PC, 96-1561-T-PC, 96-1009-T-PC, 96-1533-T-T. Petition to establish a proceeding to review the Statement of Generally Available Terms and Conditions offered by Bell Atlantic in accordance with Sections 251, 252, and 271 of the Telecommunications Act of 1996. Testimony of Michael R. Baranowski.

February 27, 1997 Case Nos. 96-1516-T-PC, 96-1561-T-PC, 96-1009-T-PC, 96-1533-T-T. Petition to establish a proceeding to review the Statement of Generally Available Terms and Conditions offered by Bell Atlantic in accordance with Sections 251, 252, and 271 of the Telecommunications Act of 1996. Rebuttal Testimony of Michael R. Baranowski.

RAILROAD TESTIMONY

Interstate Commerce Commission

March 9, 1995 Finance Docket No. 32467. National Railroad Passenger Corporation and Consolidated Rail Corporation -- Application Under Section 402(a) of the Rail Passenger Service Act for an Order Fixing Just Compensation.

October 30, 1995 Docket No. 41185. Arizona Public Service Company and PacifiCorp v. The Atchison, Topeka and Santa Fe Railway Company.

Surface Transportation Board

July 11, 1997 Docket No. 41989. Potomac Electric Power Company v. CSX Transportation, Inc. Reply Statement and Evidence of Defendant CSX Transportation, Inc.

ATTACHMENT 2

Partial List of Additional Questions that Need to be Explored

- What are the line growth assumptions for Business, Centrex and PBX customers, by wire center?
- How are the long-distance revenues projected and trended for both business and residential customers? What are the assumed gains in long distance customers? What is the linkage between that long distance revenue growth and “second-line” penetration?
- What are the market share assumptions, and how are they applied within the model?
- How are local service revenues determined? What is the base year for revenue determination, and what is the basis for any growth in revenue per line? What revenues in the EM are associated with vertical services, ancillary services, local usage, and intraLATA usage?
- What assumptions are made regarding the provision of operator services and directory assistance? How are these costs treated in the model?
- How are “prevailing market prices” determined for each of the ten years and for the terminal value calculation? What are the bases for these assumptions?
- How are switched access revenues determined? Do the EM assumptions consider access reform in evaluating the access revenues per line? What does the Fitzsimmons affidavit mean when it “assume[s] that changes from the current access charge structure are *revenue neutral* for the CLEC” (Fitzsimmons Aff., p. 11), and how is this “revenue neutrality” reflected in the EM?
- What are the sources of the UNE rates and NRCs employed in the EM? Are all charges for the UNEs and NRCs that would be required to provide local service captured and correctly applied within the EM?
- What assumptions are made to reflect customer churn, and how is it treated in the model’s calculation of costs and revenues?
- What are the collocation configuration assumptions, and how are the investments derived?
- What investments, if any, are included for switching, other than the cost of the switch itself?
- How is the dedicated transport network and the extension of loops modeled? What does the EM assume for the costs of installed structure; the percentage of underground, buried and aerial structure; the amount of sharing assumed for each

type of structure; and the installed cost of fiber? Do these costs change, depending upon the characteristics of the serving area (urban vs. rural, for example)? Are *all* costs shared, or just structure costs? How much fiber does the model assume already exists and can be easily adapted for local service transport, and how much does the model assume needs to be built?

- What, if any, start-up costs are included in the EM? What specific items are these costs designed to cover? How much in advance of the first customer are they assumed to be incurred?
- What cost inflation assumptions are used in the EM, and what are the bases for these assumptions?
- What are the assumptions concerning the timing of revenues relative to the expenses? For example, how far in advance does the model assume the collocation investments, switching investments and dedicated transport investments are incurred, relative to the start of operations? When are the start-up investments for system development, testing and personnel recruitment modeled to occur?
- What depreciation lives and depreciation methods are used in the cash flow analyses?
- What tax assumptions are included in the cash flow analyses?
- How were the profitability margins, assumed for many services by the EM, developed? How are they applied? Does such an approach reflect the realities of actual CLEC entry (where margins tend to be *negative* in early years)?
- How does the EM include “terminal values for the period exceeding the ten-year horizon?” (Fitzsimmons Aff., p. 8). Does it include perpetual growth in line counts, revenues per line, or interLATA market share? What discount rate is used to estimate terminal value? What does the EM assume about the periodic need to reinvest in facilities, and how are these reinvestment requirements incorporated into the EM’s calculations?